



-Packager: Hanover

-Year Built: 2003

-Frame: Ariel JGQ-2/3 Stage

-Cylinder Configuration: 6.5" JG (635 psi), 4.375" P (1,270 psi), 2.75" P (1,500 psi)

-Cooler: Air X-Changers 32VV

- MAWP- IC1: 645 psi
- MAWP- IC 2: 1,270 psi
- MAWP- AC: 1,440 psi

-Current Condition:

Frame: Completely overhauled 4/7/2021:

- ALL valves rebuilt
- BOTH packing glands rebuilt
- BOTH VVCP's rebuilt
- ALL main and rod bearings replaced
- NEW tandem piston rod installed due to .003" wear
- Painted 4/8/21 with NACE level 1 Mesa Tan

-Price: \$60,000

-Available to Ship: IMMEDIATELY

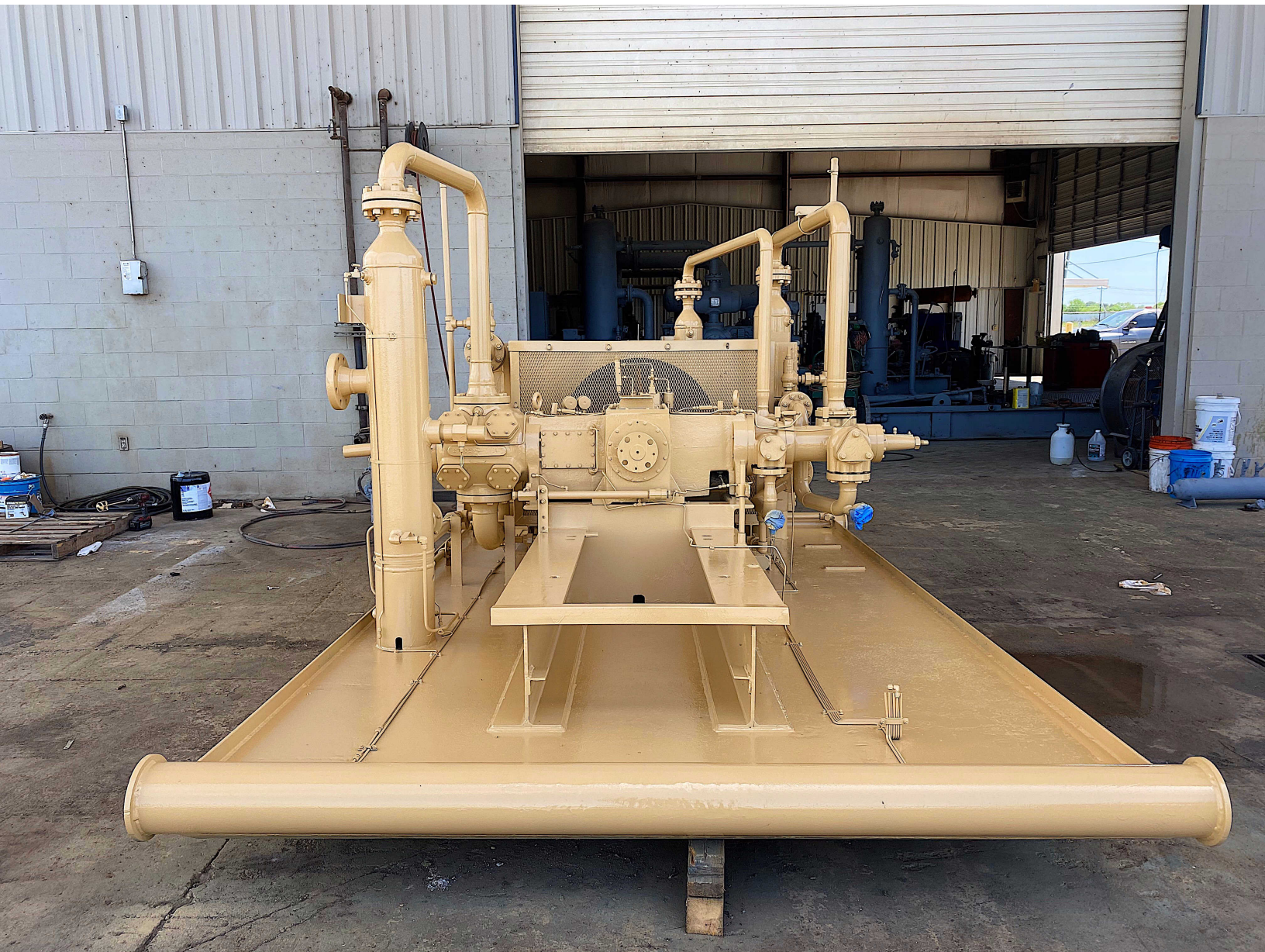
See below:

- Current photos (Painted Mesa Tan and ready to ship IMMEDIATELY!)
- Ariel Performance Runs:
  - 60 to 1,250 psi= 873 MCFD Using 160 HP
  - 90 to 1,250 psi= 1.227 MMCFD Using 196 HP
- Chart Cooler Performance Runs
  - 60 to 1,250 psi moving 873 MCFD: Outlet temp= 134\*
  - 90 to 1,250 psi moving 1.227 MMCFD: Outlet temp= 135\*

Synergy Field Services has a full-service compressor refurb shop and can provide additional repairs if you'd like further work performed for this unit or any other.



















# Ariel Performance

Company: Synergy Field Services, LLC  
 Quote:  
 Case 1:

Customer:  
 Inquiry:  
 Project:



### Compressor Data:

Elevation,ft: 50.00 Barmtr,psia: 14.669 Ambient,F: 100.00  
**Frame:** **JGQ/2** Stroke, in: 3.00 Rod Dia, in: 1.125  
 Max RL Tot, lbf: 20000 Max RL Tens, lbf: 10000 Max RL Comp, lbf: 11000  
 Rated RPM: 1800 Rated BHP: 280.0 Rated PS FPM: 900.0  
**Calc RPM:** **1800.0** **BHP:** **160** Calc PS FPM: 900.0

### Driver Data:

**Type:** **Electric**  
 Mfg:  
**Model:** **200 HP**  
 BHP: 200  
 Avail: 200

### Services

Gas Model

### Service 1

VMG-APRNL2

### Stage Data:

	1 (SG)	2	3
Target Flow, MMSCFD	1.000	1.000	1.000
<b>Flow Calc, MMSCFD</b>	<b>0.877</b>	<b>0.877</b>	<b>0.873</b>
BHP per Stage	69.9	49.6	34.2
Specific Gravity	0.6500	0.6498	0.6485
Ratio of Sp Ht (N)	1.2486	1.2567	1.2777
Comp Suct (Zs)	0.9855	0.9574	0.9009
Comp Disch (Zd)	0.9797	0.9528	0.9068
<b>Pres Suct Line, psig</b>	<b>60.00</b>	N/A	N/A
Pres Suct Flg, psig	59.25	266.75	688.71
Pres Disch Flg, psig	271.75	698.53	1262.65
<b>Pres Disch Line, psig</b>	N/A	N/A	<b>1250.00</b>
Pres Ratio F/F	3.875	2.534	1.816
Temp Suct, F	80.00	120.00	120.00
Temp Clr Disch, F	120.00	120.00	120.00

### Cylinder Data:

### Throw 1

### Throw 2

### Throw 2

	6-1/2JG	4-3/8P-HE	2-3/4P-CE
<b>Cyl Model</b>	<b>6-1/2JG</b>	<b>4-3/8P-HE</b>	<b>2-3/4P-CE</b>
<b>Cyl Bore, in</b>	<b>6.500</b>	<b>4.375</b>	<b>2.750</b>
Cyl RDP (API), psig	577.3	1154.5	1363.6
<b>Cyl MAWP, psig</b>	<b>635.0</b>	<b>1270.0</b>	<b>1500.0</b>
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	204.3	47.0	15.5
Pres Suct Intl, psig	55.87	253.24	626.88
Temp Suct Intl, F	86	124	123
Pres Disch Intl, psig	282.90	727.51	1357.85
<b>Temp Disch Intl, F</b>	<b>267</b>	<b>259</b>	<b>227</b>
HE Suct Gas Vel, FPM	7010	7211	0
HE Disch Gas Vel, FPM	6202	6121	N/A
HE Spcrs Used/Max	0/4	0/1	N/A
HE Vol Pkt Avail	1.45+58.43	1.16+49.95	N/A
Vol Pkt Used	0.00 (V) %	0.00 (V) %	N/A %
HE Min Clr, %	14.62	18.98	N/A
HE Total Clr, %	16.07	20.14	N/A
CE Suct Gas Vel, FPM	6800	0	9466
CE Disch Gas Vel, FPM	6017	N/A	7915
CE Spcrs Used/Max	0/4	N/A	0/2
CE Min Clr, %	15.57	N/A	23.20
CE Total Clr, %	15.57	N/A	23.20
Suct Vol Eff HE/CE, %	60.2/61.2	72.3/N/A	N/A/82.4
Disch Event HE/CE, ms	4.6/5.5	6.2/N/A	N/A/9.0
Suct Pseudo-Q HE/CE	4.1/3.8	3.2/N/A	N/A/4.5
Gas Rod Ld Comp, %	69.1 C	49.2 C	49.2 C
Gas Rod Ld Tens, %	72.4 T	53.3 T	53.3 T
Gas Rod Ld Total, %	74.2	53.7	53.7
Xhd Pin Deg/%Rvrsl lbf	168/94.2	136/85.9	136/85.9
Flow Calc, MMSCFD	0.877	0.877	0.873



PROPOSAL NO. 001971-A7R1  
 Date 5/10/2021  
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1 Purchaser	Ultimate User		
2 Inquiry	Destination		
3 No. Units	1	Model: 32VV	Reference
4 Assembly:	PACKAGED	Draft: FORCED	Overall Size (WxLxH), ft: ~ Est. Wt., lbs: 1,577

**PERFORMANCE**

5 Service	IC1	IC2	AC
6 Flow	0.88 MMSCFD	0.88 MMSCFD	0.87 MMSCFD
7 Fluid	0.65 SPGR	0.6498 SPGR	0.6485 SPGR
8 Temp. In / Out, f	267.0 / 149.5	259.0 / 134.9	227.0 / 134.1
9 Pressure, psia	286.4	713.2	1277.3
10 Pressure Drop	6.1	7.6	5.1
11 Heat Load, btu/hr	125,210	137,862	109,997
12 True LMTD, f	79.5	65.1	55.7
13 Overall Bare Rate, U, btu/hr ft <sup>2</sup> f	101.3	118.4	127.1
14 Fouling Factor, ft <sup>2</sup> hr f/btu	0.0010	0.0010	0.0010
15 Surface, bare / Extended, sq.ft.	16 / 247	18 / 284	16 / 247
16 Sections, No. / Connected	(1) SINGLY	(1) SINGLY	(1) SINGLY
17 Design Temp. (Max / Min), f	350 / -10	350 / -10	350 / -10
18 Design / Test Press., psig	645 / 838	1292 / 1679	1440 / 1872
19 Pass Arrangement	CROSSFLOW	CROSSFLOW	CROSSFLOW
20 No. Tube Rows / Tube Passes	3 / 3	3 / 5	3 / 5
21 Section Weight, lbs	294	355	367
22 Tubes, OD x BWG	5/8X16(0.060MIN)	5/8X16(0.060MIN)	5/8X16(0.060MIN)
23 Material	SA214	SA214	SA214
24 No. Per Section / Length, ft	20 / 5	23 / 5	20 / 5
25 Retarders			
26 Accelerators			
27 L-Tension / Fins, Type	L-TENSION / WHEEL	L-TENSION / WHEEL	L-TENSION / WHEEL
28 Material	ALUMINUM	ALUMINUM	ALUMINUM
29 Nozzles, Rating / Type	300 RFWN	600 RFWN	1500 RFWN
30 Material / Bore	SA105 / SCH-	SA105 / SCH-	SA105 / SCH-
31 (No. Inlets) / Size, in	(1) / 3 IN	(1) / 2 IN	(1) / 2 IN
32 (No. Outlets) / Size, in	(1) / 3 IN	(1) / 2 IN	(1) / 2 IN
33 Headers, Type	BOX W/PLUGS	BOX W/PLUGS	BOX W/PLUGS
34 Material	SA516 70	SA516 70	SA516 70
35 Corrosion Allow., in			
36 Grooved Tubesheet			YES
37 Plugs, Type	SHOULDER	SHOULDER	SHOULDER
38 Plugs Material	SA105	SA105	SA105
39 Industry Specifications	AXC-STD	AXC-STD	AXC-STD
40 ASME Code Stamp / N.B.	YES	YES	YES
41 Canadian Registration #			
42 PWHT			
43 NACE			
44 Inspection / NDT			

F = 100% R.T. of all header seam & nozzle butt welds PLUS 100% U.T. of all attachment welds.  
 S = Spot R.T. of 1 long seam & 1 end closure, per header.  
 U = 100% UT of all header seam, attachment & nozzle butt welds.

B = 100% R.T. of all nozzle butt welds.  
 SB = S PLUS B as each are described above.  
 UB = U PLUS B as each are described above.

AIR-SIDE PERFORMANCE	FAN DATA	DRIVER DATA	REDUCER DATA
45 Ambient Air Temp., In, f 100	No. Fans / Make	Type	ENGINE DRIVE Type REDUCER BY OTHERS
46 Elevation, ft 50	Blade Material		
47 Air Flow, SCFM 10,633	HP/FAN @ RPM		
48 Air Temp., Out, f 132.3	Dia., in / No. Blades		
49 Min. Ambient, f	Blade Angle, Deg		
50	Series / Blade Adj.		
51	Fan Hub Bushing		



# Ariel Performance

Company: Synergy Field Services, LLC  
 Quote:  
 Case 1:

Customer:  
 Inquiry:  
 Project:



7.7.6.0

### Compressor Data:

Elevation,ft:	50.00	Barmtr,psia:	14.669	Ambient,F:	100.00
<b>Frame:</b>	<b>JGQ/2</b>	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
<b>Calc RPM:</b>	<b>1800.0</b>	<b>BHP:</b>	<b>196</b>	Calc PS FPM:	900.0

### Driver Data:

**Type:** Electric  
**Mfg:**  
**Model:** 200 HP  
 BHP: 200  
 Avail: 200

### Services

Gas Model

### Service 1

VMG-APRNL2

### Stage Data:

	<b>1 (SG)</b>	<b>2</b>	<b>3</b>
Target Flow, MMSCFD	1.000	1.000	1.000
<b>Flow Calc, MMSCFD</b>	<b>1.230</b>	<b>1.230</b>	<b>1.227</b>
BHP per Stage	93.6	64.4	32.2
Specific Gravity	0.6500	0.6501	0.6502
Ratio of Sp Ht (N)	1.2521	1.2627	1.2858
Comp Suct (Zs)	0.9793	0.9427	0.8759
Comp Disch (Zd)	0.9719	0.9395	0.8818
<b>Pres Suct Line, psig</b>	<b>90.00</b>	N/A	N/A
Pres Suct Flg, psig	88.95	361.30	872.33
Pres Disch Flg, psig	366.30	882.33	1262.65
<b>Pres Disch Line, psig</b>	N/A	N/A	<b>1250.00</b>
Pres Ratio F/F	3.676	2.386	1.440
Temp Suct, F	80.00	120.00	120.00
Temp Clr Disch, F	120.00	120.00	120.00

### Cylinder Data:

### Throw 1

### Throw 2

### Throw 2

	<b>6-1/2JG</b>	<b>4-3/8P-HE</b>	<b>2-3/4P-CE</b>
<b>Cyl Model</b>	<b>6-1/2JG</b>	<b>4-3/8P-HE</b>	<b>2-3/4P-CE</b>
<b>Cyl Bore, in</b>	<b>6.500</b>	<b>4.375</b>	<b>2.750</b>
Cyl RDP (API), psig	577.3	1154.5	1363.6
<b>Cyl MAWP, psig</b>	<b>635.0</b>	<b>1270.0</b>	<b>1500.0</b>
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	204.3	47.0	15.5
Pres Suct Intl, psig	84.18	342.95	791.80
Temp Suct Intl, F	86	124	122
Pres Disch Intl, psig	381.37	919.63	1365.55
<b>Temp Disch Intl, F</b>	<b>262</b>	<b>253</b>	<b>196</b>
HE Suct Gas Vel, FPM	7010	7211	0
HE Disch Gas Vel, FPM	6202	6121	N/A
HE Spcrs Used/Max	0/4	0/1	N/A
HE Vol Pkt Avail	1.45+58.43	1.16+49.95	N/A
<b>Vol Pkt Used</b>	<b>5.00 (V) %</b>	0.00 (V) %	N/A %
HE Min Clr, %	14.62	18.98	N/A
HE Total Clr, %	19.00	20.14	N/A
CE Suct Gas Vel, FPM	6800	0	9466
CE Disch Gas Vel, FPM	6017	N/A	7915
CE Spcrs Used/Max	0/4	N/A	0/2
CE Min Clr, %	15.57	N/A	23.20
CE Total Clr, %	15.57	N/A	23.20
Suct Vol Eff HE/CE, %	57.2/63.5	74.8/N/A	N/A/89.3
Disch Event HE/CE, ms	4.6/5.6	6.6/N/A	N/A/10.6
Suct Pseudo-Q HE/CE	4.1/3.9	3.3/N/A	N/A/4.6
Gas Rod Ld Comp, %	90.5 C	60.2 C	60.2 C
Gas Rod Ld Tens, %	94.7 T	48.8 T	48.8 T
Gas Rod Ld Total, %	97.1	57.5	57.5
Xhd Pin Deg/%Rvrsl lbf	174/97.1	166/97.6	166/97.6
Flow Calc, MMSCFD	1.230	1.230	1.227





PROPOSAL NO. 001971-A7R2  
 Date 5/10/2021  
 Page 1 of 1

1 Purchaser	Ultimate User		
2 Inquiry	Destination		
3 No. Units	1	Model: 32VV	Reference
4 Assembly:	PACKAGED	Draft: FORCED	Overall Size (WxLxH), ft: ~ Est. Wt., lbs: 1,577

**PERFORMANCE**

5 Service	IC1	IC2	AC
6 Flow	1.23 MMSCFD	1.23 MMSCFD	1.23 MMSCFD
7 Fluid	0.65 SPGR	0.6501 SPGR	0.6502 SPGR
8 Temp. In / Out, f	262.0 / 162.1	253.0 / 147.8	196.0 / 135.3
9 Pressure, psia	381.0	897.0	1277.3
10 Pressure Drop	8.7	11.6	9.9
11 Heat Load, btu/hr	150,682	167,505	102,242
12 True LMTD, f	83.9	70.7	47.0
13 Overall Bare Rate, U, btu/hr ft <sup>2</sup> f	115.5	132.5	140.0
14 Fouling Factor, ft <sup>2</sup> hr f/btu	0.0010	0.0010	0.0010
15 Surface, bare / Extended, sq.ft.	16 / 247	18 / 284	16 / 247
16 Sections, No. / Connected	(1) SINGLY	(1) SINGLY	(1) SINGLY
17 Design Temp. (Max / Min), f	350 / -10	350 / -10	350 / -10
18 Design / Test Press., psig	645 / 838	1292 / 1679	1440 / 1872
19 Pass Arrangement	CROSSFLOW	CROSSFLOW	CROSSFLOW
20 No. Tube Rows / Tube Passes	3 / 3	3 / 5	3 / 5
21 Section Weight, lbs	294	355	367
22 Tubes, OD x BWG	5/8X16(0.060MIN)	5/8X16(0.060MIN)	5/8X16(0.060MIN)
23 Material	SA214	SA214	SA214
24 No. Per Section / Length, ft	20 / 5	23 / 5	20 / 5
25 Retarders			
26 Accelerators			
27 L-Tension / Fins, Type	L-TENSION / WHEEL	L-TENSION / WHEEL	L-TENSION / WHEEL
28 Material	ALUMINUM	ALUMINUM	ALUMINUM
29 Nozzles, Rating / Type	300 RFWN	600 RFWN	1500 RFWN
30 Material / Bore	SA105 / SCH-	SA105 / SCH-	SA105 / SCH-
31 (No. Inlets) / Size, in	(1) / 3 IN	(1) / 2 IN	(1) / 2 IN
32 (No. Outlets) / Size, in	(1) / 3 IN	(1) / 2 IN	(1) / 2 IN
33 Headers, Type	BOX W/PLUGS	BOX W/PLUGS	BOX W/PLUGS
34 Material	SA516 70	SA516 70	SA516 70
35 Corrosion Allow., in			
36 Grooved Tubesheet			YES
37 Plugs, Type	SHOULDER	SHOULDER	SHOULDER
38 Plugs Material	SA105	SA105	SA105
39 Industry Specifications	AXC-STD	AXC-STD	AXC-STD
40 ASME Code Stamp / N.B.	YES	YES	YES
41 Canadian Registration #			
42 PWHT			
43 NACE			
44 Inspection / NDT			

F = 100% R.T. of all header seam & nozzle butt welds PLUS 100% U.T. of all attachment welds.  
 S = Spot R.T. of 1 long seam & 1 end closure, per header.  
 U = 100% UT of all header seam, attachment & nozzle butt welds.

B = 100% R.T. of all nozzle butt welds.  
 SB = S PLUS B as each are described above.  
 UB = U PLUS B as each are described above.

AIR-SIDE PERFORMANCE	FAN DATA	DRIVER DATA	REDUCER DATA
45 Ambient Air Temp., In, f 100	No. Fans / Make	Type	ENGINE DRIVE Type REDUCER BY OTHERS
46 Elevation, ft 50	Blade Material		
47 Air Flow, SCFM 10,633	HP/FAN @ RPM		
48 Air Temp., Out, f 136.4	Dia., in / No. Blades		
49 Min. Ambient, f	Blade Angle, Deg		
50	Series / Blade Adj.		
51	Fan Hub Bushing		